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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/970,579	10/04/2001	Hiroaki Ono	112857-296	1213
29175	7590	09/16/2004	EXAMINER	
BELL, BOYD & LLOYD, LLC P. O. BOX 1135 CHICAGO, IL 60690-1135			BAYAT, ALI	
			ART UNIT	PAPER NUMBER
			2625	

DATE MAILED: 09/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/970,579	ONO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ali Bayat	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1-30 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 04 October 2001 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. ____ .   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: ____ .                                   |

*Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 4-8, 10-14, 16-20, 22-24, 26-28 and 30 are rejected under 35

U.S.C. 102(e) as being anticipated by Shiota et al. (US 2002/0034336).

In regard to claim 1, Shiota provides for a first generating section for generating a first look up table using the input image data (Fig.10 element 52, paragraph 149); a second generating section for generating a second look up table based on the first look up table and human visual characteristics (Fig.10 element 60, paragraph 149); a combining section (Fig.10 element 66) for generating a third look up table by combining the first and second look up tables according to a predetermined combining ratio (Fig.10 element 62, paragraph 149); and a transforming section for transforming the image data using the third look up table (Fig.10 elements 64, 86 and 20).

With regard to claims 2, 8, 14, 20, 24 and 28, Shiota provides for a generating section, wherein first generating section generates the first look up table based on a histogram of intensity levels of the image data (Fig.10 element 44, paragraph 143).

As to claims 4, 10 and 16 Shiota provides for an input section for inputting the combining ratio (Fig.10 element 66, paragraph 149).

In regard to claims 5, 11 and 17, Shiota provides for a setting section for setting the combining ratio based on the first and second look up tables ( see paragraph 137).

With regard to claims 6,12, 22, 26 and 30 Shiota provides for a transforming section, wherein the transforming section transform a dynamic range of the intensity levels of the image data using the third look up table ( paragraph 231, lines 13-20).

In regard to claims 7,19 and 23.see claim 1 above. they recite similar limitations as claim 1. hence they are similarly analyzed and rejected.

As to claims 13 and 27 . see claim 1 above. They recite similar limitations as claim 1. except for a storage medium ( Fig.10 elements 12, paragraph 149). Hence they are similarly analyzed and rejected.

*Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3,9,15,21,25 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiota et al.( US 2002/0034336) in view of Itagaki ( U.S. 5,553,164).

In regards to claims 3,9,15,21,25 and 29 Shiota provides for a second look up table (Fig. 10 element 60, which corresponds to low pass filter image, which based on human visual characteristics). Shiota does not provide expressly for a predetermined logarithm curve as the human visual characteristics. Itagaki provides for a predetermined logarithm curve as the human visual characteristics ( col.4 lines 20-40,

note the characteristic of the visual sensation on the stimulus of brightness is not linear). The prior art of Shiota et al. and Itagaki are combinable because they are from the same field of endeavor (image transformation). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate the teaching of Itagaki ( col. 4 lines 20-40) with the system and method of Shiota et al. because " a considerable block distortion occurs visually, in case where an original image includes a large amount of the high frequency component. This is applied to image compression methods using transformation other than DCT." Col.2 lines 16-20.

#### Other Cited References

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US patent 6,720,993 to Hwang et al. is cited for apparatus and method for expanding dynamic range in image processing system.

US patent 6,118,549 to Katougi et al. is cited for color conversion device.

US patent 5,786,908 to Liang is cited for method and apparatus for converting image color values from a first to a second color space.

US patent 6,081,254 to Tanaka et al. is cited for color correction of imaging apparatus.

#### Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Bayat whose telephone number is 703-306-5915. The examiner can normally be reached on M-Thur 9:00-7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-3085246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ali Bayat   
Patent examiner  
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9/15/04



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